WHAT IS CLAIMED IS:

1. A call pick-up system in a mobile communication network comprising:

a call processor that manages ringing information for a call directed to a first mobile phone, receives a call pick-up request for a second mobile phone, and connects the call to the second mobile phone;

a visitor location register that transmits to the call processor subscriber information about the second mobile phone which transmitted the call pick-up request; and

a base station controller that controls assignment of a wireless traffic channel in response to the call pick-up request, and controls connection or disconnection of a communication line to the first mobile phone.

2. The call pick-up system according to claim 1, wherein the call processor performs:

a terminating ringing process that manages the ringing information and transmits an originating PID and switch information corresponding to the call; and

a terminating pick-up process that sends call pick-up request information to the terminating ringing process, receives from the terminating ringing process the originating PID and switch information for the call, and notifies an originating process designated by the originating PID of the response to the call.

3. The call pick-up system according to claim 2, wherein the terminating ringing process terminates the call after receiving from the terminating pick-up process a number of

the second mobile phone which transmitted the call pick-up request, displays the number, through the base station controller, on the first mobile phone for which the call is to be picked up, and deletes the ringing information.

4. The call pick-up system according to claim 2, wherein after receiving the subscriber information from the visitor location register, the terminating pick-up process searches a terminating information memory using location information and a group code included in the subscriber information and, as a result, obtains the terminating PID of the terminating ringing process.

5. The call pick-up system according to claim 4, wherein the first mobile phone is located within a coverage area of the same base station or sector as the second mobile phone and has a same group code as the second mobile phone.

6. The call pick-up system according to claim 4, wherein the call processor stores the ringing information including a number of the first mobile phone, location information represented by base station ID and/or sector ID, a terminating PID, and a pick-up group code.

7. A call pick-up system in a mobile communication network comprising:

an adjacent base station list DB that stores IDs of adjacent base stations and/or sectors belonging to an audible area where a ringing signal of a first mobile phone currently being called may be heard;

a terminating information DB that stores the terminating ringing information for the first mobile phone;

a terminating call processor that searches the adjacent base station list DB and the terminating information DB based on a pick-up group code and location information of a second mobile phone which transmitted a call pick-up request and then connects a terminating call for the first mobile phone to the second mobile phone;

a visitor location register that transmits to the terminating call processor subscriber information for the second mobile phone, the subscriber information including a group code and location information for the second mobile phone; and

a base station controller that controls assignment of wireless traffic channels in response to the call request and controls connection or disconnection of a communication line to the first mobile phone.

8. The call pick-up system according to claim 7, wherein the terminating call processor performs:

a terminating ringing process that manages the terminating ringing information about the first mobile phone in the terminating information DB and transmits an originating PID and switch information corresponding to the terminating call; and

a terminating pick-up process that searches the adjacent base station list DB and the terminating information DB upon receipt of the call pick-up request, sends the call pick-up request to the terminating ringing process designated by a terminating PID corresponding to a number for the terminating call belonging to a same pick-up group and located within the ringing signal audible area, receives from the terminating ringing process the originating PID and switch information for the terminating call, and then notifies an originating process designated by the originating PID of a response to the terminating call.

9. The call pick-up system according to claim 8, wherein the terminating ringing process terminates the terminating call after receiving from the terminating pick-up process a number of the second mobile phone which transmitted the call pick-up request and then transmits the number through the base station controller for display on the first mobile phone, and deletes the terminating ringing information.

10. The call pick-up system according to claim 8, wherein after receiving from the visitor location register the pick-up group code and location information of the second mobile terminal which transmitted the call pick-up request, the terminating pick-up process searches the adjacent base station list DB based on the received pick-up group code to obtain information about the base station and/or sector located within the audible area of the ringing first mobile phone, and searches the terminating information DB using the location information and information about the ringing signal audible area to obtain the terminating PID corresponding to the terminating call.

11. A call pick-up method in a mobile communication system, comprising:

registering in a terminating information memory ringing information corresponding to a first mobile phone, the ringing information including a number, group code, location information, and a PID of the first mobile phone;

if a call pick-up request for the first mobile phone is received from a second mobile phone, searching the ringing information in the terminating information memory using a group code and location information corresponding to the second mobile phone;

sending the call pick-up request to a terminating ringing process designated by a terminating PID corresponding to a call to be picked up within the same group and coverage area of the same base station or sector as the second mobile phone; and

notifying an originating process of a response to the call using an originating PID and switch information transmitted by the terminating ringing process as a response to the call pick-up request and, at the same time, connecting the communication line.

12. The call pick-up method according to claim 11, wherein the group code indicates whether the call may be picked up or not and identifies a relevant subscriber group where mobile communication subscribers are classified as a group of subscribers who can pick up terminating calls for other subscribers in the same group.

13. The call pick-up method according to claim 11, wherein the terminating PID is obtained by searching the terminating information memory using the group code and location information corresponding to the second mobile phone that transmitted the pick-up

request, and is the terminating PID of the terminating ringing process which is processing the call for the first mobile phone belonging to the same group and located within the coverage of the same base station or sector as the second mobile phone.

14. The call pick-up method according to claim 11, further comprising:

confirming whether there is a response to the terminating ringing or a call pick-up request before a time-out period, by counting a terminating ringing time from when a terminating ringing process informed an originating process of a terminating ringing status of the relevant mobile phone; and

if there is a call pick-up request before the time-out period, terminating the call, releasing the registered terminating ringing information from the terminating information memory, and then transmitting to the terminating pick-up process the originating PID and switch information.

15. The call pick-up method according to claim 14, further comprising:

notifying the originating process of the response to the terminating call if it is determined that there has been a response to the terminating ringing before the terminating ringing time-out from the mobile phone at the terminating side.

16. The call pick-up method according to claim 14, further comprising:

notifying the originating process of the call failure caused by absence of any response and terminating the call if it is determined that there has been neither a response to the terminating ringing nor a call pick-up request before the terminating ringing time-out.

17. The call pick-up method according to claim 11, further comprising:

interpreting a terminating number in the originating request message and confirming the call pick-up request; and

receiving from a visitor location register subscriber information including a group code and location information relating to the second mobile phone which transmitted the call pick-up request.

18. The call pick-up method according to claim 17, further comprising:

confirming whether a call pick-up request has been transmitted from the second mobile phone and recognizing that the call pick-up request was transmitted if interpretation of the terminating number included in an originating request message starts with specific digits indicating a call pick-up request.

19. The call pick-up method according to claim 18, further comprising:

if the interpretation of the terminating number confirms that the call pick-up request was transmitted:

searching the terminating information memory using the number of the first mobile phone; and

sending a call pick-up request to the terminating ringing process designated by the terminating PID corresponding to the number of the first mobile phone stored in the terminating information memory.

20. The call pick-up method according to claim 11, further comprising:

displaying the number of the second mobile phone on the first mobile phone, if the number of the second mobile phone is received from the terminating pick-up process at the time of making a call pick-up request.

21. The call pick-up method according to claim 11, further comprising:

at the originating process which received notice of the response to the call from the terminating pick-up process, renewing the terminating PID information which has been stored in a call register with the terminating PID of the terminating pick-up process, while making transition to a busy state.

22. A call pick-up method in a mobile communication network, comprising:

registering in a terminating information DB terminating ringing information including a number, location information, and PID of a first mobile phone receiving a call and relevant PIDs according to relevant pick-up groups;

if there is a call pick-up request from a mobile phone, searching an adjacent base station list DB and the terminating ringing information in the terminating information DB using a group code and location information of the mobile phone transmitting the pick-up request;

sending the call pick-up request to a terminating ringing process designated by a terminating PID corresponding to the terminating call to be picked up, belonging to the same group as the mobile phone transmitting the pick-up request and located within a ringing signal audible area; and

notifying an originating process of a response to the terminating call using an originating PID and switch information transmitted by the terminating ringing process as a response to the call pick-up request and, at the same time, connecting the communication line.

23. The call pick-up method according to claim 22, further comprising:

transmitting the originating PID and switch information to the terminating pick-up process after terminating the terminating call for which the call pick-up request has been made and after releasing the registered terminating ringing information from the terminating information DB.

24. The call pick-up method according to claim 21, wherein said sending of a call pick-up request to the terminating ringing process comprises:

searching the adjacent base station list DB using a pick-up group code of the mobile phone transmitting the call pick-up request to obtain information on the base stations and/or sectors located within the ringing signal audible area;

searching the terminating information DB using the location information of the mobile phone transmitting the call pick-up request and the obtained information about the ringing signal audible area to obtain the terminating number for which the call pick-up can be performed; and

sending a call pick-up request for the mobile phone currently being called to the terminating ringing process designated by the terminating PID corresponding to the obtained terminating number for which the call pick-up can be performed.

25. The call pick-up method according to claim 24, wherein the adjacent base station list DB stores, for each base station sector, IDs of adjacent base stations and/or sectors located within the audible area where a ringing signal of the mobile phone may be heard.

26. The call pick-up method according to claim 22, further comprising if mobile phones within the pick-up group support a GPS function:

receiving from the base station controller GPS location information about the mobile phone transmitting the pick-up request;

searching the terminating ringing information registered in the terminating information DB using the pick-up group code of the mobile phone transmitting the pick-up request and the received GPS location information; and

sending a call pick-up request to the terminating ringing process designated by a terminating PID corresponding to a terminating number for which the terminating pick-up can be performed, belonging to the same pick-up group and located within the ringing signal audible area.

27. A method for processing calls in a mobile communication system, comprising:

receiving a request to pick up a call directed to a first mobile terminal; and

transferring the call to a second mobile terminal in response to the request.

28. The method of claim 27, wherein the first and second mobile terminals are located in a coverage area of a same base station or sector.

29. The method of claim 27, wherein the first and second mobile terminals are located in coverage areas of different base stations or sectors.

30. The method of claim 27, further comprising:

transmitting information to the first mobile terminal indicating a number of the second mobile terminal that received the transferred call.

31. The method of claim 27, further comprising:

storing information indicative a group of mobile phones eligible to pick-up calls for the first mobile phone; and

determining whether the second mobile phone is in said group, wherein said transferring step is performed only if the second mobile phone is determined to be within said group.

32. A system for processing calls in a mobile communication system, comprising:

a processor which receives a request to pick up a call directed to a first mobile terminal and transfers the call to a second mobile terminal in response to the request.

33. The system of claim 32, wherein the first and second mobile terminals are located in a coverage area of a same base station or sector.

34. The system of claim 32, wherein the first and second mobile terminals are located in coverage areas of different base stations or sectors.

35. The system of claim 32, wherein the processor transmits information to the first mobile terminal indicating a number of the second mobile terminal that received the transferred call.

36. The system of claim 32, further comprising:

a storage unit which stores information indicative a group of mobile phones eligible to pick-up calls for the first mobile phone, wherein the processor determines whether the second mobile phone is in said group and then transfers the call to the second mobile only if the second mobile phone is determined to be within said group.

37. A mobile terminal, comprising:

a receiver that receives a call signal; and

a processor which displays information identifying another mobile terminal which picked up a call corresponding to the call signal.

38. The mobile terminal of claim 37, wherein said information is a number of the mobile terminal.